

FIGURE 7

Amino acid sequence alignment of variants of selected scFv antibodies against loop 6 of human CCR5

V_H region:

	CDR1	CDR2	CDR3
15.150.11	QVQLQESGPGLVKPSSETLSLTCTVSGSI--GHDTWSWIRQPPGEGLEWIGFI	FDGSTNYPNSLNGRVTSISLDTSKNQLSLRLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGM	DMVWGQGTITVTSS
15.150.12	QVQLQWAGALLKSGWTLSTCAVSGSP--SGYYWSWIRQPPGKGLWIGI	INHRGSTTYPNSLDGRVTISLDTSTNQISLKLTSMTAADTAVYYCART-----	VAGTSDYWGQGTITVTSS
15.150.24	QVTLKESGPTLVKPTQTLTCTFSGFSLRTTGEGVGWVRQPPGKALEWALII	YWDHDKRYSFSLKSLRLTITKDTSKKQVVLTMNVDPADTATYYCTHEQYYDTSGQPY	-----FDWVGQGTITVTSS

V_L region:

	CDR1	CDR2	CDR3
15.150.11	NFMLTQPPS-ASGTPGQRVSI	SCGSSS-DIGSNTVNMVYQQLPGTAPKLLIYSNNQRP	SGVDPDRFSGFKSGTSASLVI
15.150.12	ETTLTQSPAFMSATPGDKVSI	SCKASR-DVDDDD-VNMVYQQRPG	EAPFIIEDATTLVPGISPRFSGSGYGTDFTLTINNIDSEDAAYFCLQHDNF--
15.150.24	NIQVTQSPSSLSASVGDRVTMTCRASQ--DI-RKNLNMYQKPKGAPKVL	IYDASDLETGIPSRFSGSGSGTDFILTISSLP	EDIATYYCQSD-YL-PLTFGGGTKVDIK

Handwritten notes: "N-1" and "N-2" with arrows pointing to the CDR3 regions of the V_H and V_L sequences respectively.

FIGURE 8

Amino acid sequences of variable regions of clone 15.186.35 scFv against N-terminus fragment of human CCR5

V_H region [SEQ ID NO: 34]:

QVTLKESGPTLVKPTQTTLTLTCTLSGFSLSSTSGVSVGWIRQPPGKALEWLASINWNDDKCYSPLKSRLTITKDTPKNQV
VLAMSNMDPADTATYSCALDMPPHDSGPQSFDAVDVWGPGTMVTVSS

V_L region [SEQ ID NO: 35]:

SYELMQLPSSVSVSPGQTASITCSGDNLGDKYACWYQQKPGRSPVLVIYGDNKRPSGIPERFSGSNSGNTATLTISGTQAM
DEADYYCQAWDTSTAVFGTGTCLTVL

Partial amino acid sequences of variable regions of clone 15.150.11 scFv against loop 6 fragment of human CCR5

V_H region [SEQ ID NO: 36]:

QVQLQESGPGGLVKPSETLSLTCTVSGGSIGHDYWSWIRQPPGEGLEWIGFIFFDGSTNYPNPSLNGRVTISLDTSKNQLSL
RLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGMVDVWGQGTITVTV

V_L region [SEQ ID NO: 37]:

NFMLTQPPSAXGTPGQQRVSISSGSSSDIGSNTVNWYQQLPGTAPKLLIYSNNQRPSGVPDRFSGFKSGTSASLVISGLQ
SEDEADYYCAAWDESLNGVVFGGG

Partial amino acid sequences of variable regions of clone 15.150.12 scFv against loop 6 fragment of human CCR5

V_H region [SEQ ID NO: 38]:

QVQLQQWGAGLLKSWGTLSLTCAVSGASFSGYYWSWIRQPPGKGLEWIGEINHRGSTTYNPSLDGRVTISLDTSTNQISL
KLTSMTAADTAVYYCARTVAGTSDYWGQGTITVTVSS

V_L region [SEQ ID NO: 39]:

TTLTQSPAFMSATPGDKVSISSKASRDVDDVDNWWYQQRPGAPIFIIEDATTLVPGISPRFSGSGYGTDFTLTINNIDS
EDAAYYFCLQHDNFPLTFGGGTKVEIK

Amino acid sequences of variable regions of clone 15.150.24 scFv against loop 6 fragment of human CCR5

V_H region [SEQ ID NO: 40]:

QVTLKESGPTLVKPTQTTLTLTCTFSGFSRLTTGEGVGWVRQPPGKALEWLALIWDDDKRYSPSLKSRLTITKDTSKKQV
VLTMNVDPADTATYYCTHEQYYDTSGQPYFDFWGQGTITVTVSS

V_L region [SEQ ID NO: 41]:

NIQVTQSPSSLSASVGDRVTMTCRASQDIRKNLWYQQKPGKAPKVLIIYDASDLETGIPSRFSGSGSGTDFILTISSLQP
EDIATYYCQQSDYLPLTFGGGTKVDIK

FIGURE 1A

Amino acid sequence of human CCR5 [SEQ ID NO: 1]:

1 MDYQVSSPIY DINYTTSEPC QKINVKQIAA RLLPPLYSLV FIFGFVGNML VILILINCKR
N-Terminus Transmembrane Domain 1

61 LKSMTDIYLL NLAISDLFFL LTVPFWAHYA AAQWDFGNTM CQLLTGLYFI GFFSGIFFII
LOOP 1 Transmembrane Domain 2 Loop 2 Transmembrane Domain 3

121 LLTIDRYLAV VHAVFALKAR TVTFGVVTSV ITWVVAVFAS LPGIIFTRSQ KEGLHYTCSS
Loop 3 Transmembrane Domain 4 Loop 4

181 HFPYSQYQFW KNFQTLKIVI LGLVLPLLVM VICYSGILKT LLRCRNEKKR HRAVRLIFTI
Transmembrane Domain 5 Loop 5

241 MIVYFLFWAP YNIVLLLNTE QEFFGLNNCS SSNRLDQAMQ VTETLGMTHC CINPIIYAFV
Transmembrane Domain 6 Loop 6 Transmembrane Domain 7

301 GEKFRNYLLV FFQKHIAKRF CKCCSIFQQE APERASSVYT RSTGEQEISV GL
C-Terminus

FIGURE 1B

Peptide fragments derived from human CCR5 that are used as target peptides:

N-terminal fragment [SEQ ID NO: 8]:

MDYQVSSPIYDINYTTSEPCQKINVKQIAARLLPPL

Loop 4 fragment [SEQ ID NO: 9]:

TRSQKEGLHYTCSSHFPYSQYQFWKNFQTLKI

Loop 6 fragment [SEQ ID NO: 3]:

EFFGLNNCSSSNRLDQAMQVTETLGMTHC

[illegible]

CAGGTGCAGCTACAGCAGTGGGGCGCAGGACTGTTGAAGTCTTGGGGAACCTGTCCCTCACCTGCGCTGTCTCTGGTGC
GTCGTTTAgTGGTtATTATTGGAGCTGGATCCGCCAGCCCCCAGGgAAGGGGCTGGAGTGGATTGGGGAGATCAATCATC
GTGGAAGCACTACCTACAACCCGTCCCTCGACGGTCTGAGTCAACATATCATTAGACACATCTACCAACCAGATCTCCCTT
AAACTGACCTCTATGACCGCCGCGACACGGCCGTGTATTACTGTGCGAGGACAGTGGCTGGTACTAGTGACTACTGGGG
CCAGGGAACCTGGTCACCGTTTCCTCAGGGAGTGCATCCGCCCAACGGGCGGTGGTGGATCAGGCGGCGGAGGATCTG
GCGGAGGTGCGACGGTGGTGGAGGCAGTAAAACGACATCTACGCAGTCTCCAGCATTCTATGTACGCGACTCCAGGAGAC
AAAGTCAGCATCTCCTGCAAAGCCAGCCGAGACGTTGATGATGTGAACCTGGTACCAACAGAGACCAAGGAGAAGCTCc
TATTTTcATTATTGAAGATGCTACTACTCTCGTTTcTGGAATCTCACCTCGATTCTAGTGGCAGCGGGTATGGAACCGATT
TTACCTCACAATTAATAACATCGATTCTGAGGATGCTGCATATTATTTCTGTCTACAACATGATAATTTCCCGCTCAC
TTCGGCGGAGGGACCAAGGTGGAGATCAAA

QVQLQQWGAGLLKSWGTL~~SL~~TCAVSGASFSGGYWSWIRQPPGKGLEWIGEINHRGSTTYPNSL~~DGRVTI~~SLDTSTNQISL
KLTSM~~TAADTAVYYCARTVAGTSDYWGQGT~~LTVTVSSGSASAPTGGGGSGGGSGGGSGGGGSKTTLTQSPAFMSATPGD
KVSISCKASRDVDDVDNWN~~YQ~~RPGEA~~PIFI~~EDATTLVPGISPRFSGSGYGTDFTLTINNIDSEDAAYYFCLQHDN~~FLPT~~
EGGGTKVEIK

CAGGTCACCTTGAAGGAGTCTGGTCTACGCTGGTGAAACCCACACAGACCCTCAGCTGACCTGCACCTTCTCTGGGTT
CTCACTCAGAACTACTGGAGAGGGTGTGGGCTGGGTCCGTGAGCCCCAGGAAAGGCCCTGGAATGGCTTGCACTCATT
ATTGGGATGATATAAGCGCTACAGCCCATCTCTGAAGAGCAGGCTCACCATACCAAGGACACCTCCAAAAAGCAGGTG
GTCCTTACAATGACCAACGTGGACCCAGCGGACACAGCCACCTATTACTGTACACACGAGCAATACTATTATGATACTAG
TGGTCAGCCATACTACTTTGACTTCTGGGGCCAGGGCACCCCTGGTCACCGTCTCCTCAGGCGGTGGTGGATCAGGCGGCG
GAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAACATCCAGGTGACCCAGTCTCCATCTCCTCTGTCTGCATCT
GTAGGAGACAGAGTCACCATGACTTGCCGGCGGAGTCAGGACATATTAGGAAGAATTTAAATTTGGTATCAGCAAAAAACCAGG
GAAAGCCCCCTAAGGTCCTGATCTACGATGCATCCGATTTGAAACAGGGATCCCCATCAAGGTTTCAAGTTGAGTGAAGTGGATCTG
GGACAGATTTTATCCTCACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATACTACTGTCAACAGTCTGATTATTTA
CCGCTCACTTTTCGGCGGAGGGACCAAAGTGGATATCAAA

QVTLKESGPTLVKPTQTLTLTCTFSGFSLRRTTGEGVGWVRQPPGKALEWLALIIYDDDKRYSPLKSRLTITKDTSKKQV
VLTMTNVDPADTATYYCTHEQYYYDTSQOPYYFDFWGQGLTVTVSSGGGGSGGGGSGGGGSGGGGSNIQVTQSPSSLSAS
VGDRVTMTCRASQDIRKNLNWYQQKPGKAPKVLIIYDASDLETGIPSRFSGSGSGTDFILTISSLQPEDIIATYYCQQSDYL
PLTFGGGTKVDIK

FIGURE 5

DNA sequence of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 16]:

CAGGTTACCTTGAAGGAGTCTGGTCCTACGTTGGTGAACCCACACAGACCCTCAGCTGACCTGCACCTTGTCTGGGTT
CTCACTCAGCACTAGTGGAGTGAGTGTGGGCTGGATCCGTCCAGCCCCAGGAAAGGCCCTTGAGTGGCTTGCAAGCATAA
ATTGGAATGATGATAAGTGCTACAGCCCATCTCTGAAAAGCAGGCTCACCATCACCAAGgACACCCCCaAAAACCAGGTG
GTCCTTGCAATGAGCAACATGGACCCTGCGGACACAGCCACATATTCCTGTGCACTCGATATGCCCCCATGATAGTGG
CCCCGAATCTTTTGATGCTTCTGATGTCTGGGGCCAGGGACAATGGTCACCGTCTCTTCAGGCGGTGGTGGATCAGGCG
GCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTTCCTATGAGCTGATGCAGCTACCCTCAGTGTCCGTGTCC
CCAGGACAGACAGCCAGCATCACCTGCTCTGGAGATAATTTGGGGGATAAATATGCCTGCTGGTATCAACAGAAGCCAGG
CCGGTCCCCCTGTGCTGGTCAATTTATGGAGATAACAAGCGGCCCTCAGGGATCCCTGAGCGATTCTCTGGCTCCAATCTG
GGAACACAGCCACTCTGACCATCAGCGGGACCCAGGCTATGGATGAGGCTGACTATTACTGTGAGCGGTGGGACACCAGC
ACTGCTGTCTTCGGAAGTGGGACCAAGCTCACCGTCCTA

Amino acid sequence of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 17]:

QVTLKESGPTLVKPTQTLTLTCTLSGFSLSGVSVGWIRQPPGKALEWLASINWNDDKCYSPLKSRITITKDTPKNQV
VLAMSNMDPADTATYSCALDMPPHDSGPQSFDAADVWGPMTMTVSSGGGGSGGGSGGGSGGGSSYELMQLPSVSVS
PGQTASITCSGDNLDKYACWYQQKPRSPVLVIYGNKRPSGIPERFSGSNSGNTATLTISGTQAMDEADYYCQAWDTS
TAVFGTGTKLTVL

DNA sequence of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 18]:

CAGGTGCAGCTGCAGGAGTCGGGCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCACTTGCACTGTCTCTGGT3G
CTCCATCGGTTCATGACTACTGGAGCTGGATACGGCAGCCCCCAGGGGAGGGACTGGAGTGGATTG3TTTCATCTTCTTCG
ATGGGAGCACCAACTACAACCCCTCCCTCAACGGTCGAGtCACCATCTCACTCGACACGTCGAAGAATCAGCTCTCCCTG
AGGCTGACCTCTGTGACCGCTGCGGACACGGCCGTGTATTTCTGTGCGAGACTAAAGGGGGCGTGGTTATTGTCTGAACC
CCCTTACTTCAGCTCCGACGGCATGGACGTCTGGGGCCAAGGGACCACGGTCACCGTCCCTCAGGCGGTGGTGGATCAG
GCGGCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAATTTTATGCTGACTCAGCCCCCTCAGCGTCTGGG
ACCCCGGGCAGAGGGTCAGCATCTCTTGTTCCTGGGAGCAGCTCCGACATCGGAAGTAATACTGTAACTGGTACCAGCA
ACTCCCAGGAACGGCCCCCAAATCCTCATCTATAGTAATAATCAGCGGCCCTCAGGGGTCCCTGACCGATTCTCTGGCT
TCAAGTCTGGCACCTCAGCCTCCCTGGTCATCAGTGGCCTCCAGTCTGAGGATGAGGCTGATTATTATTGTGCAGCATGG
GATGAGAGCCTGAATGGTGTGGTGTTCGGCGGAGGACCAAGG

Amino acid sequence of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 19]:

QVQLQESGPGPLVKPSETLSLTCTVSGGSIGHDYWSWIRQPPGEGLEWIGFIFFDGSTNYNPSLNGRVTISLDTSKNQLSL
RLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGMVDVWQGTTVTVPSSGGGGSGGGSGGGSGGGSGNFMLTQPPSASG
TPGQRVSISSGSSSDIGSNTVNWYQQLPGTAPKLLIYSNNQRPSGVPDRFSGFKSGTSASLVISGLQSEADYYCAAW
DESLNGVVFGGGPR

FIGURE 6 (cont.)

DNA sequence of a variant of clone 15.150.12 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 28]:

CAGGTGCAGCTACAGCAGTGGGGCGCAGGACTGTTGAAGTCTTGGGGAACCCTGTCCCTCACCTGCGCTGTCTCTGGTGCGTCTTTAGTGGTtATTATTGGAGCTGGATCCGCCAGCCCCAGGgAAGGGGCTGGAGTGGATTGGGGAGATCAATCATC GTGGAAGCACTACCTACAACCCGTCCCTCGACGGTCGAGTCACCATATCATTAGACACATCTACCAACCAGATCTCCCTTAACTGACCTCTATGACCGCCGCGGACACGGCCGTGTATTACTGTGCGAGGACAGTGGCTGGTACTAGTGACTACTGGGGCCAGGGAACCCTGGTCACCGTTTCTCAGGGAGTGCATCCGCCCCAACGGGCGGTGGTGGATCAGGCGGCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTGAAACGACACTCACGCAGTCTCCAGCATTATGTCTAGCGACTCCAGGAGACAAAGTCAGCATCTCCTGCAAAGCCAGCCGAGACGTTGATGATGATGTGAACTGGTACCAACAGAGACCAGGAGAAGCTCcTATTTTcATTATTGAAGATGCTACTACTCTCGTTCCcTGGAAATCTCACCTCGATTcAGTGGCAGCGGGTATGGAACCGATT TTACCCTCACAATTAATAACATCGATTCTGAGGATGCTGCATATTATTTCTGTCTACAACATGATAATTTCCCCTCACC TTCGGCGGAGGGACCAAGGTGGAGATCAAA

Amino acid sequence of a variant of clone 15.150.12 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 29]:

QVQLQQWGAGLLKSWGTLSLTCAVSGASFSGYYWSWIRQPPGKGLEWIGEINHRGSTTYNPSLDGRVTISLDTSTNQISLKLTSMTAADTAVYYCARTVAGTSDYWQGQTLVTVSSGSASAPTGGGGSGGGGSGGGGSGGGGSETTLTQSPAFMSATPGDKVSI SCKASRDVDDDVNWWYQQRPGEAIFIIEDATTLVPGISPRFSGSGYGTDFTLTINNIDSEDAAYFCLQHDNFPLTFGGGTKVEIK

DNA sequence of a variant of clone 15.150.24 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 30]:

CAGGTCACCTTGAAGGAGTCTGGTCCTACGCTGGTGAAACCCACACAGACCCTCACGCTGACCTGCACCTTCTCTGGGTTCTCACTCAGAACTACTGGAGAGGGTGTGGGCTGGGTCCGTcAGCCCCCAGGAAAGGCCCTGGAATGGCTTGCACTCATTATTGGGATGATGATAAGCGCTACAGCCCATCTCTGAAGAGCAGGCTCACCATCACCAAGGACACCTCCAAAAAGCAGGTGTCTCCTTACAATGACCAACGTGGACCCAGCGGACACAGCCACCTATTACTGTACACACGAGCAATACTATTATGATACTAGTGGTCAGCCATACTACTTTGACTTCTGGGGCCAGGGCACCCTGGTCACCGTCTCCTCAGGCGGTGGTGGATCAGGCGGCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAACATCCAGGTGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGAGACAGAGTCACCATGACTTGCCGGGCGAGTCAGGACATTAGGAAGAATTTAAATTGGTATCAGCAAAAACCAGGGAAAGCCCCTAAGGTCTCTGATCTACGATGCATCCGATTTGGAAACAGGGATCCCATCAAGGTTcAGTGGAAAGTGGATCTGGACAGATTTTATCCTCACCATCAGCAGCCTGCAGCCTGAAGATATTGCAACATACTACTGTCAACAGTCTGATTATTTACCGCTCACTTTTCGGCGGAGGGACCAAAGTGGATATCAAA

Amino acid sequence of a variant of clone 15.150.24 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 31]:

QVTLKESGPTLVKPTQTLTLTCTFSGFSLRTTGEGVGWVRQPPGKALEWLALIWDDDKRYSPSLKSRLTITKDTSKKQV VLTMTNVDPADTATYYCTHEQYYYDTSGQPYFDWQGQTLVTVSSGGGGSGGGGSGGGGSGGGGSNIQVTQSPSSLSASVGDRVTMTCRASQDIRKNLNWYQQKPGKAPKVLIIYDASDLETGIPSRFSGSGSGTDFILTIISSLPEDIATYYCQSDYLPLTFGGGTKVDIK

FIGURE 6

DNA sequence of a variant of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 24]:

CAGGTCACCTTGAAGGAGTCTGGTCTACGTTGGTGAAACCCACACAGACCCTCACGCTGACCTGCACCTTGTCTGGGTT
CTCACTCAGCACTAGTGGAGTGAGTGTGGGCTGGATCCGTGAGCCCCAGGAAAGGCCCTTGAGTGGCTTGCAAGCATAA
ATTGGAATGATGATAAGTGCTACAGCCCATCTCTGAAAAGCAGGCTCACCATCACCAAGgACACCCCCaAAAACCAGGTG
GTCCTTGCAATGAGCAACATGGACCCTGCGGACACAGCCACATATTCTGTGCACTCGATATGCCCCCATGATAGTGG
CCCGCAATCTTTTATGCTTCTGATGTCTGGGGCCAGGGACAATGGTCACCGTCTCTTCAGGCGGTGGTGGATCAGGCG
GCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTTCCTATGAGCTGATGCAGCTACCCTCAGTGTCCGTGTCC
CCAGGACAGACAGCCAGCATCACCTGCTCTGGAGATAATTTGGGGGATAAATATGCCTGCTGGTATCAACAGAAGCCAGG
CCGGTCCCCTGTGCTGGTCATTTATGGAGATAACAAGCGGCCCTCAGGGATCCCTGAGCGATTCTCTGGCTCCAACCTCTG
GGAACACAGCCACTCTGACCATCAGCGGGACCCAGGCTATGGATGAGGCTGACTATTACTGTGAGGCGTGGGACACCAGC
ACTGCTGTCTTCGGAAC TGGGACCAAGCTCACCCTCCTA

Amino acid sequence of a variant of clone 15.186.35 scFv against N-terminus fragment of human CCR5 [SEQ ID NO: 25]:

QVTLKESGPTLVKPTQTLLTCTLSGFSLSSTSGVSVGWIRQPPGKALEWLASINWNDDKCYSPLKSRLTITKDTPKNQV
VLAMSNMDPADTATYSCALDMPHDSGPQSFDASDVWPGTMVTVSSGGGGSGGGGSGGGGSGGGGSSYELMQLPSVSVS
PGQTASITCSGDNLDKYACWYQQKPRSPVLVIYGDNKRPSGIPERFSGSNSGNTATLTISGTQAMDEADYYCQAWDTS
TAVFGTGKLTVL

DNA sequence of a variant of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 26]:

CAGGTGCAGCTGCAGGAGTCGGGCCCAGGACTGGTGAAGCCTTCGGAGACCCTGTCCCTCACTTGCACTGTCTCTGGTGG
CTCCATCGGTCTGACTACTGGAGCTGGATACGGCAGCCCCCAGGGGAGGGACTGGAGTGGATTGGTTTCATCTTCTTCG
ATGGGAGCACCAACTACAACCCCTCCCTCAACGGTCGAGtCACCATCTCACTCGACACGTCGAAGAATCAGCTCTCCCTG
AGGCTGACCTCTGTGACCGCTGCGGACACGGCCGTGTATTTCTGTGCGAGACTAAAGGGGGCGTGGTTATTGTCTGAACC
CCCTTACTTCAGCTCCGACGGCATGGACGTCTGGGGCCAAGGGACCACGGTCACCGTCTCCTCAGGCGGTGGTGGATCAG
GCGGCGGAGGATCTGGCGGAGGTGGCAGCGGTGGTGGAGGCAGTAATTTTATGCTGACTCAGCCCCCTCAGCGTCTGGG
ACCCCCGGGCAGAGGGTCAGCATCTCTTGTTCTGGGAGCAGCTCCGACATCGGAAGTAATACTGTAAACTGGTACCAGCA
ACTCCCAGGAACGGCCCCCAAACCTCCTCATCTATAGTAATAATCAGCGGCCCTCAGGGGTCCCTGACCGATTCTCTGGCT
TCAAGTCTGGCACCTCAGCCTCCCTGGTCATCAGTGGCCTCCAGTCTGAGGATGAGGCTGATTATTATTGTGCAGCATGG
GATGAGAGCCTGAATGGTGTGGTGTTCGGCGGAGGAACCAAGGTGACCGTCTCTA

Amino acid sequence of a variant of clone 15.150.11 scFv against loop 6 fragment of human CCR5 [SEQ ID NO: 27]:

QVQLQESGPGLVKPSETLSLTCTVSGGSIGHDYWSWIRQPPGEGLEWIGFIFFDGSTNYPNPSLNGRVTISLDTSKNQLSL
RLTSVTAADTAVYFCARLKGAWLLSEPPYFSSDGMVDVWQGTTVTVSSGGGGSGGGGSGGGGSGGGGNSFMLTQPPSASG
TPGQRVSISSGSSSDIGSNTVNWYQQLPGTAPKLLIYSNNQRPSGVDPDRFSGFKSGTSASLVISGLQSEADYYCAAW
DESLNGVVFGGGTKVTVL

FIGURE 2A

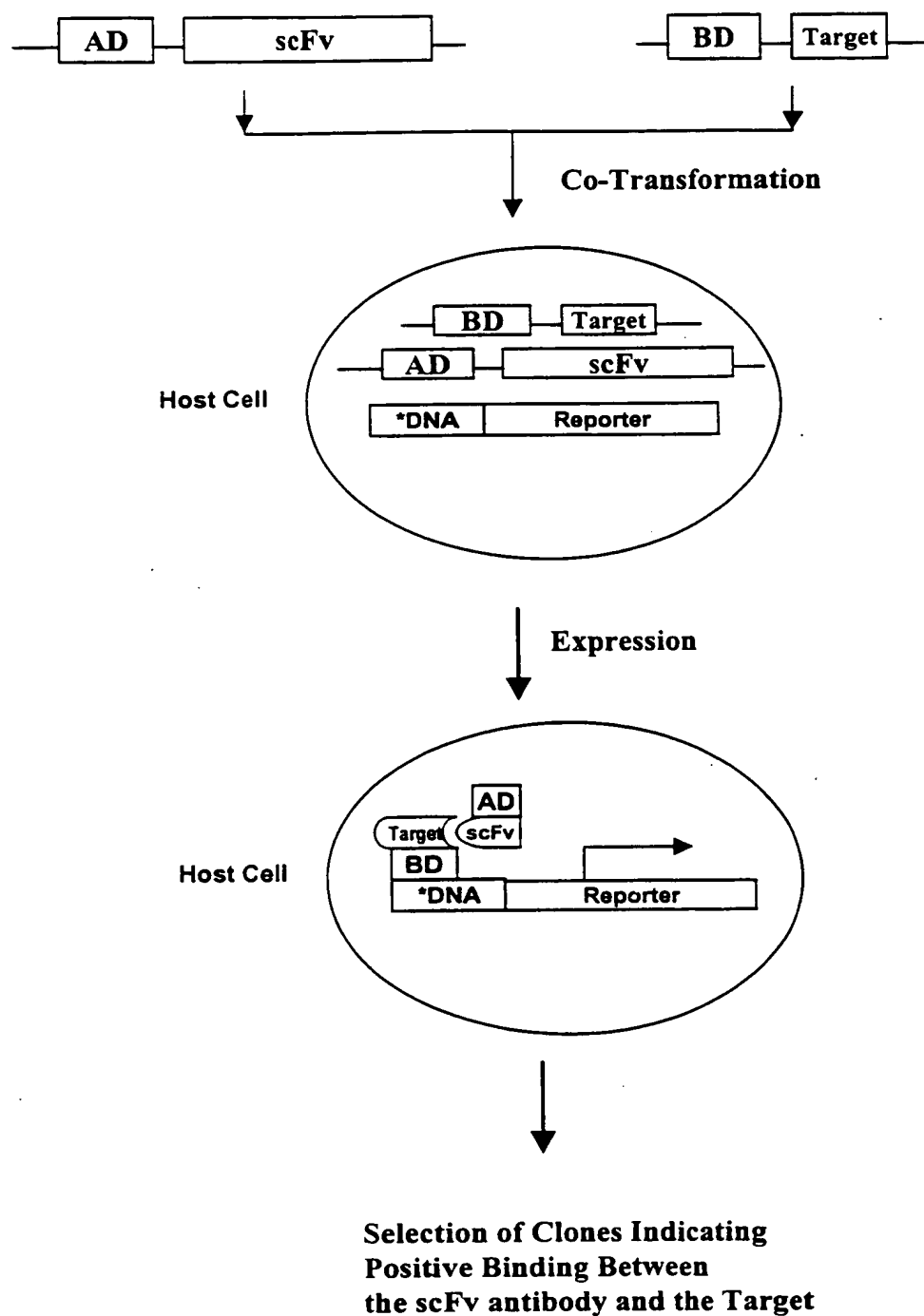


FIGURE 2B

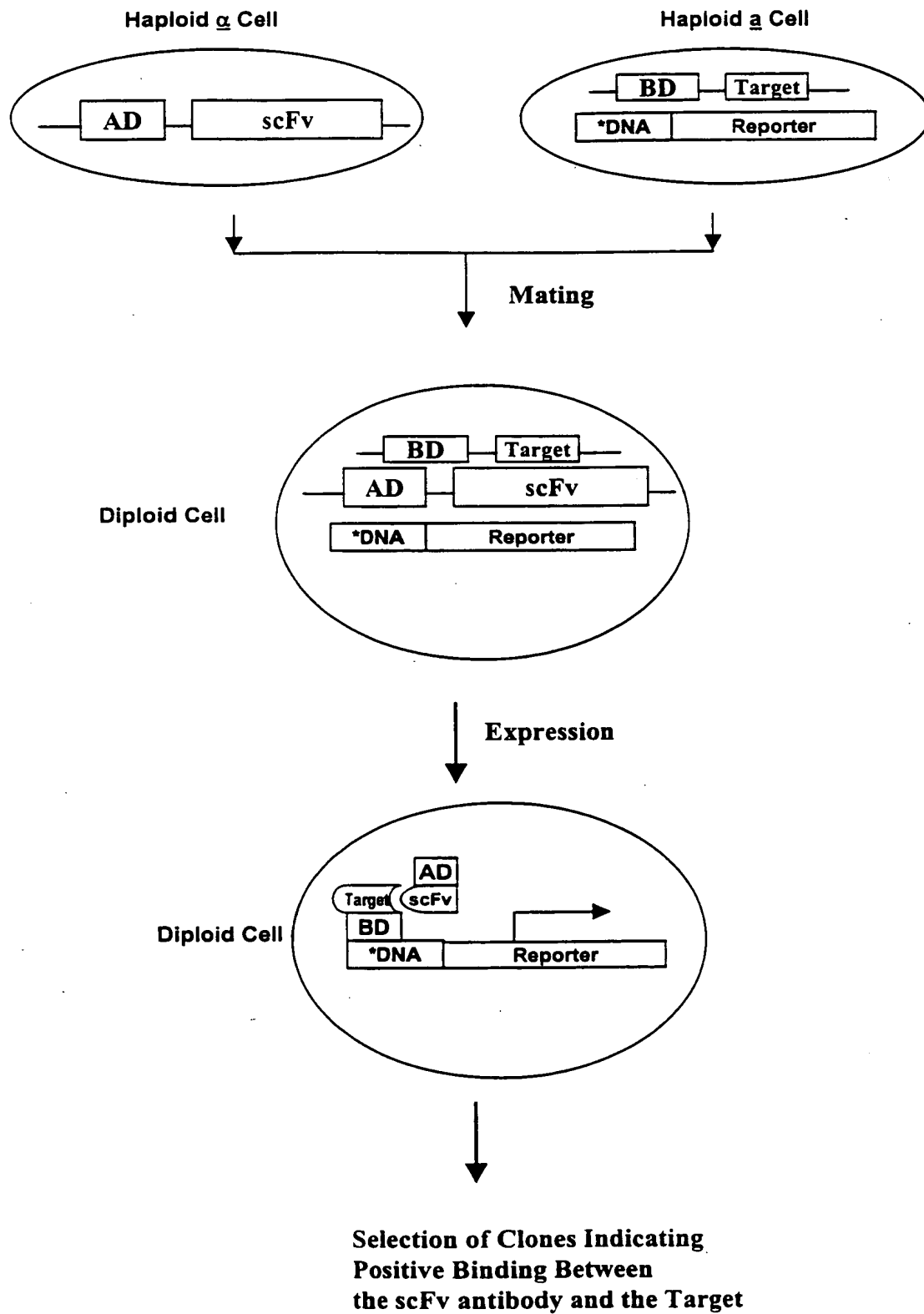


FIGURE 3

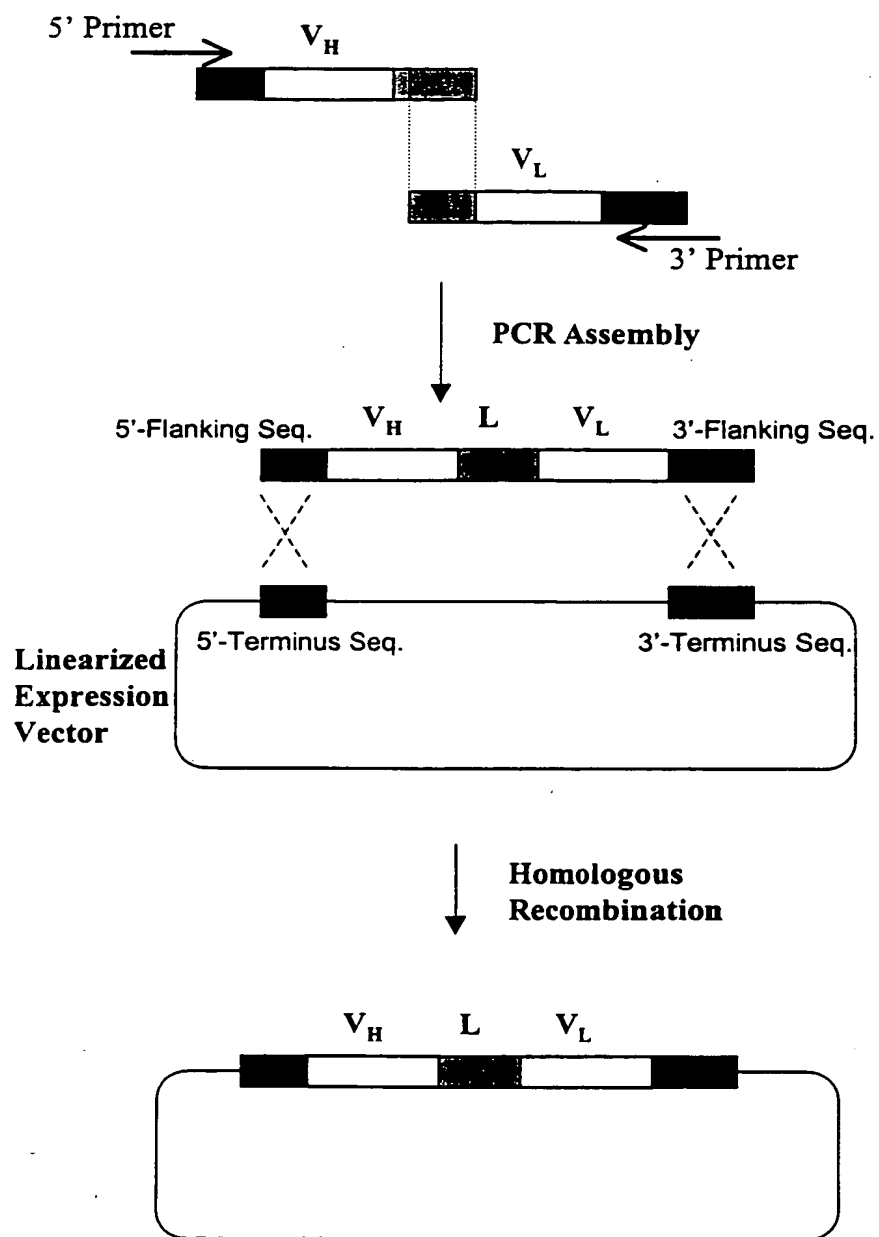


FIGURE 4

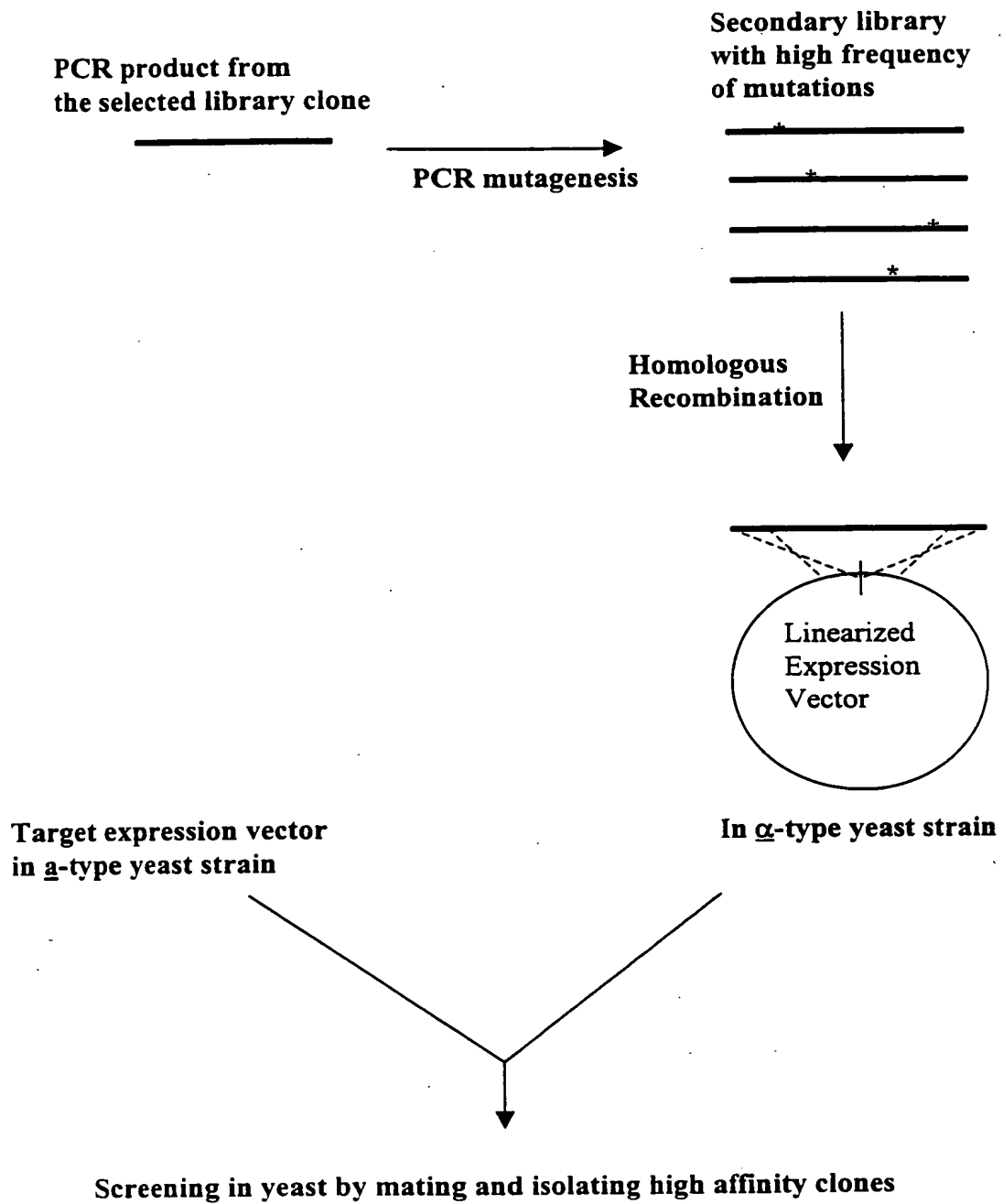


FIGURE 9A

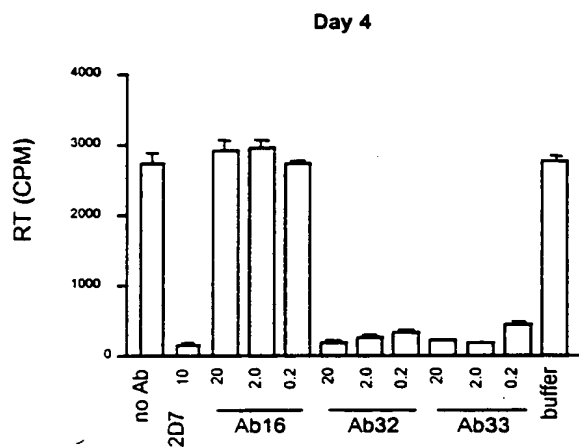


FIGURE 9B

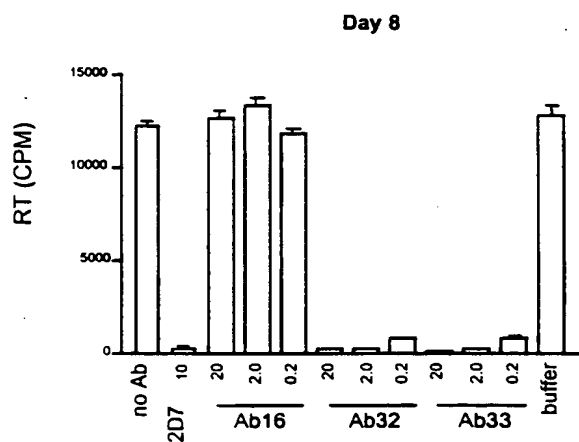
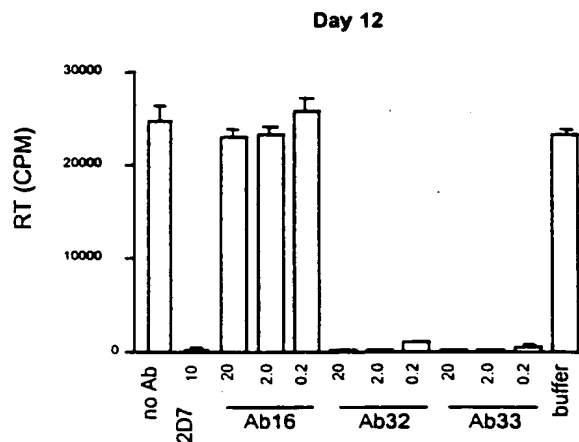


FIGURE 9C



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FIGURE 10A

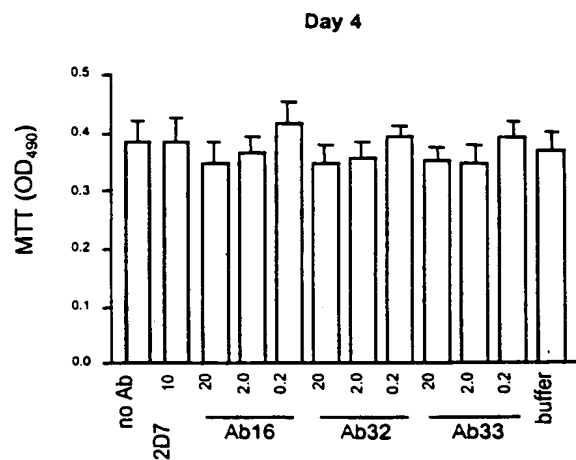


FIGURE 10B

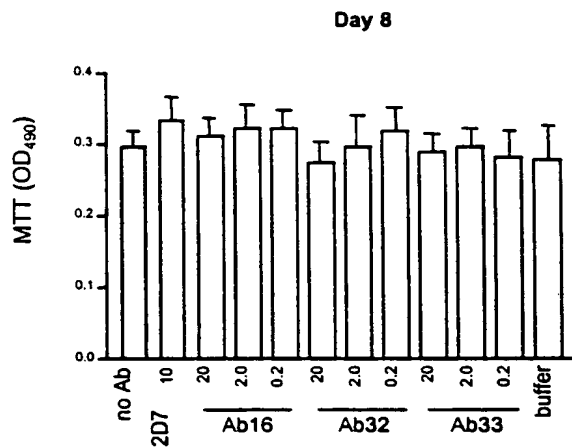


FIGURE 10C

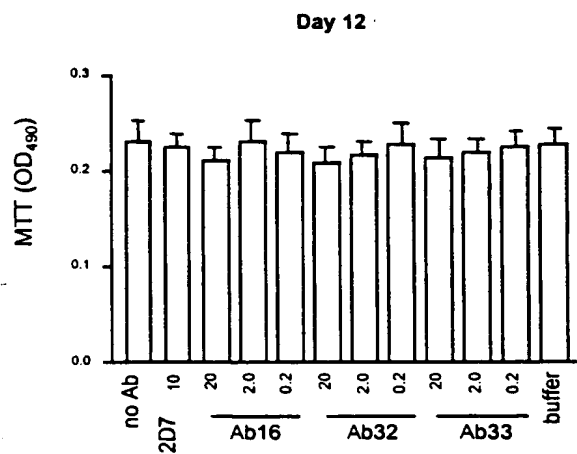


FIGURE 11A

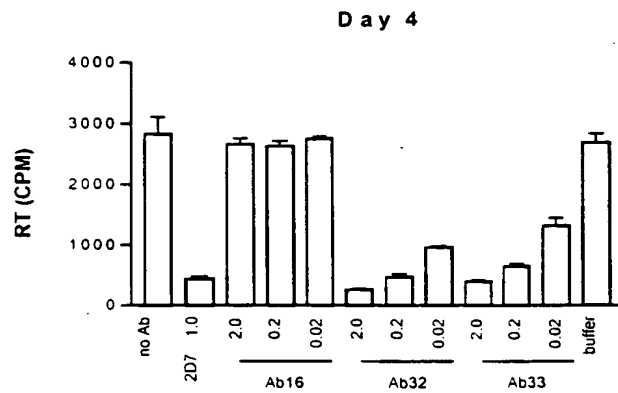


FIGURE 11B

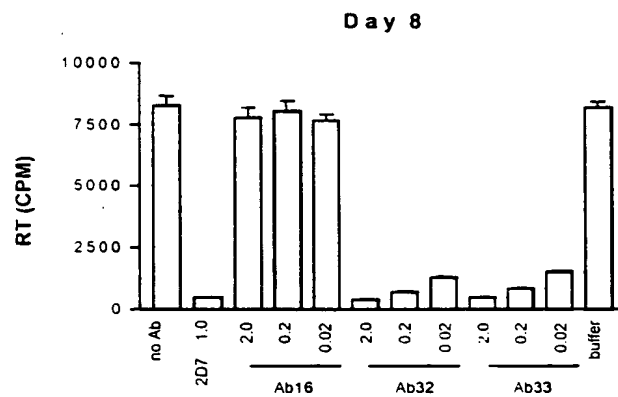


FIGURE 11C

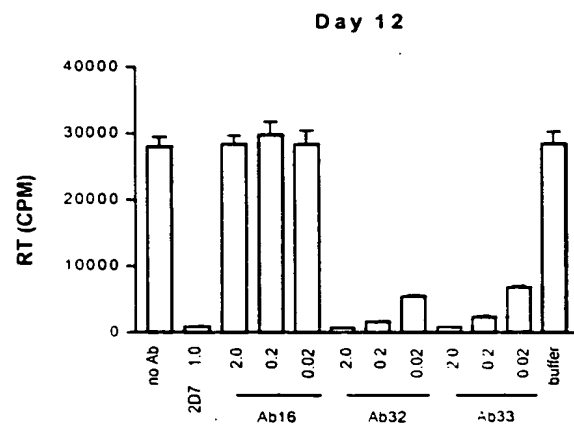
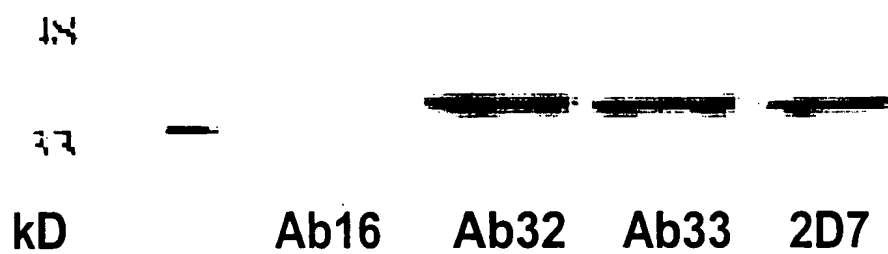


FIGURE 12



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FIGURE 13

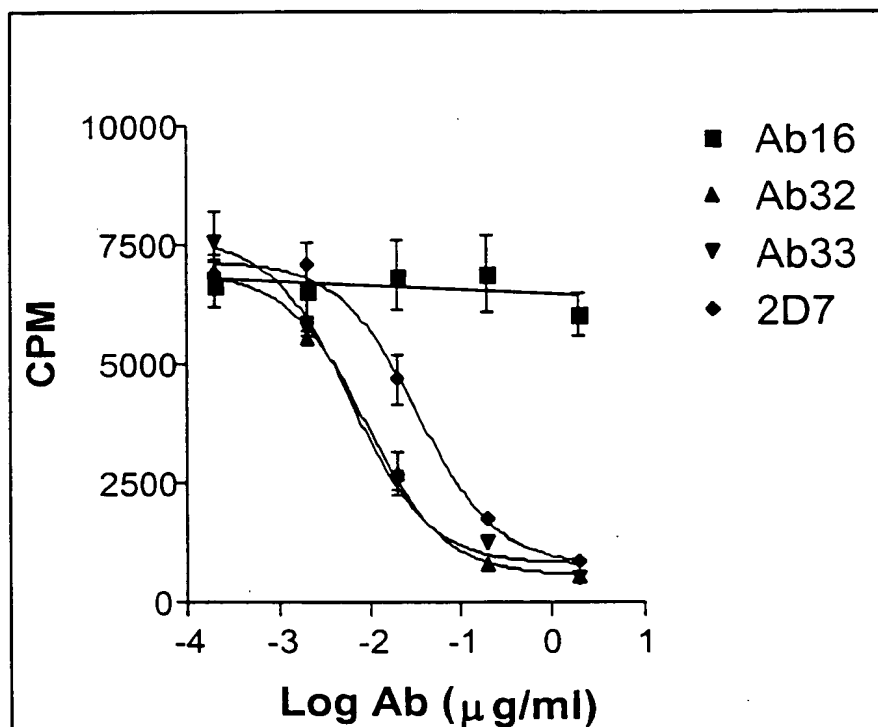


FIGURE 14

